Project Update

The Illinois DOT (IDOT) recently completed a project to examine how Intelligent Transportation Systems (ITS) can be used throughout the state to address pressing statewide transportation issues. This project has provided a number of useful tools that will ensure that infrastructure is used more efficiently to provide more benefits to a growing number of travelers.

The products of this project include a Statewide ITS Architecture to track how systems are connected to each other and a Statewide ITS Strategic Plan which identifies projects to address high priority needs and lays out a comprehensive vision for how these projects can be implemented.

ITS Statewide and Regional Architectures

The statewide and regional ITS architectures for Illinois have been approved by the Federal Highway Administration (FHWA), providing vital tools in the deployment of ITS in the state.

A Statewide ITS Architecture was developed after exhaustive stakeholder outreach and inventories of ITS resources across the state. This architecture identifies how existing ITS systems interact and provides a framework for integrating systems in the future so that they provide maximum benefit.

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Intelligent Transportation Systems are…

People using technology in transportation to save lives, time and money.
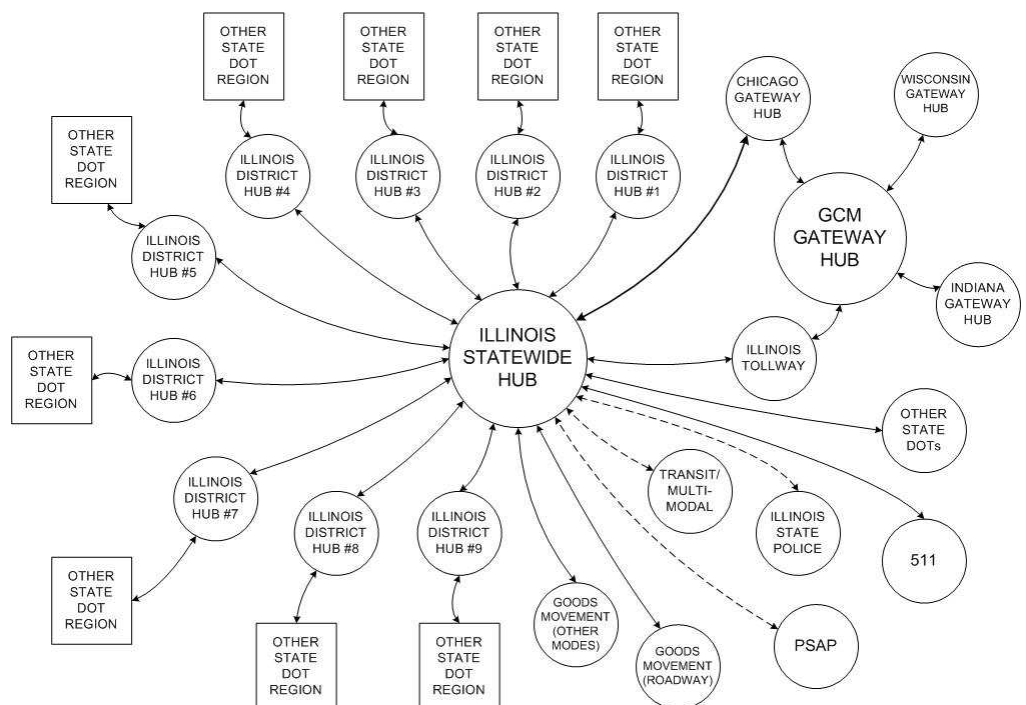
Regional ITS Architectures were also developed and approved for Rockford, the Quad Cities, Peoria, Champaign, Springfield, and the St. Louis area. ITS plans are also being developed for the DeKalb and Kankakee areas. These architectures were developed to comply with a Federal Highway Administration Rule and a parallel Federal Transit Administration Policy for ITS development.

Both the state and regional ITS architectures provide an essential resource in deploying ITS projects in the future. The architectures allow users to see how new ITS projects can be integrated with existing ones to provide a greater benefit and potentially reduce deployment costs.

Stakeholder Workshops and Needs Identification

As part of the ITS Architecture and Strategic Plan development, the Edwards and Kelcey team held regional workshops to help identify the most pressing needs that ITS could address. Using input from over 100 stakeholders across the state, a prioritized list of statewide needs areas which can be addressed through ITS applications was developed. The prioritized statewide needs areas are:

1. **Traveler Information**
2. **Traffic Management**
3. **Incident Management**
4. **Interagency Coordination**
5. **Improved Communications**
6. **Data Management**
7. **Commercial Vehicle Operations (CVO)**
8. **Transportation Safety**
9. **Construction & Maintenance**
10. **Transit**
11. **Standardization**
12. **Systems Security**
13. **Outreach**
14. **Multi-modal Coordination**
15. **Asset Sharing and Control**

These needs were used in the Statewide ITS Strategic Plan to develop projects to address these need areas and determine what the highest priority projects to be deployed would be.

ITS Funding

Project Milestones

Illinois Infrastructure Inventory Completed – September 2004

ITS Architectures Submitted to FHWA – April 2005

Completion of Regional ITS Architectures – April 2005

Completion of Statewide ITS Architecture - August,

Statewide ITS Strategic Plan Completed – June 2006

With the passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU) in August, 2005, new funding was provided for transportation projects around the country. The new transportation authorization act has several effects on ITS in Illinois. One of the major changes is the elimination of the ITS Deployment Program, which had provided funding for new ITS projects as ITS developed. The elimination of this program signals the end of this incubation period and the mainstreaming of ITS. ITS projects must now quantify their benefits and compete against other construction and improvement projects for funding.

To help ITS project managers in Illinois, the Illinois Statewide ITS Strategic Plan highlights potential funding sources such as SAFETEA-LU programs, grant opportunities, and public/private partnerships. The plan also recommends potential funding sources for the identified statewide projects in Illinois.

Statewide ITS Strategic Plan

The Statewide ITS Strategic Plan provides a map for the future deployment and integration of ITS in Illinois. This strategic plan used information gathered from the ITS Architecture inventory, regional ITS workshops, and numerous interviews and surveys to identify top priority ITS projects and initiatives that can be started in the near term to address the most pressing transportation needs in the state.

The plan focuses on projects that are statewide in nature, allowing regions to determine how to best address local issues. The plan does recommend program areas for regional ITS deployments, but does not list specific projects. This approach allows the IDOT Central Office to use state resources to address problems that occur in multiple areas and affect a large number of travelers and lets Regions determine the appropriate projects for their area.

The plan identifies 89 projects, divided into High, Medium, and Low Priority categories. The top ten priority statewide projects in the plan are:

1) **Work Zone Training** – provide standardized training on ITS devices and operational procedures that can increase safety and efficiency in work zones

2) **Satellite Radio Traffic Information Service** – develop partnerships with satellite radio stations to provide commercial-vehicle related traveler information

3) **Illinois Statewide Information Hub** – provide a central point to collect and redistribute traveler information from different regions of the state

4) **Implement Commercial Vehicle Information Exchange Window (CVIEW)** – coordinate systems to leverage the existing commercial vehicle safety and credential programs in Illinois

5) **Chicago/IDOT Central Office Fiber Link** – provide an Ethernet network connection from the IDOT District 1 Communication Center and IDOT Program Office to the IDOT Central Office in Springfield

6) **Statewide Dynamic Message Sign (DMS) Deployment** – install DMS at interchanges and other key statewide decision points along interstate corridors

7) **Chicago Information Hub** – provide a central data collection and redistribution point for northeastern Illinois

8) **Special Event Training** – conduct training to state, regional, and local personnel on how to safely and effectively manage traffic during planned special events

9) **Rockford Fiber Link** – provide an Ethernet network connection from the IDOT District 1 Communication Center and IDOT Program Office to the Rockford Emergency Operations Center

10) **IDOT Station One Upgrade** – remodel the existing Station One office in Spring-field to operate select statewide ITS systems

Other high priority projects are:

- **Configuration Management Guidelines**
- **Develop Statewide Data Exchange Standards**
- **Electronic One-Stop Shopping (EOSS) for Commercial Vehicle Interstate Credentials**
- **Peoria Fiber Link**
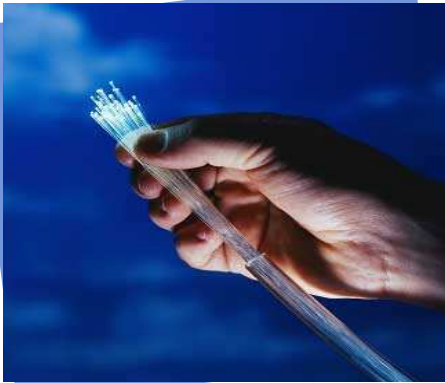
- **Work Zone Best Practices Study and Pilot**
- **Single State Registration System (SSRS) Credentialing Automation**

- **Automated Oversize/Overweight (OS/OW) Permitting**
- **Statewide CCTV Camera Deployment**
- **River Bridge Surveillance**
- **Collinsville Information Node**

- **Springfield Information Node**
- **ITS Planning and Integration Training**
- **Quad Cities Fiber Link**

For more information about the Illinois Statewide ITS Strategic Plan, go to www.ilits.org or contact the Illinois DOT ITS Program Office at (847) 705-4800.

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Edwards AND Kelcey
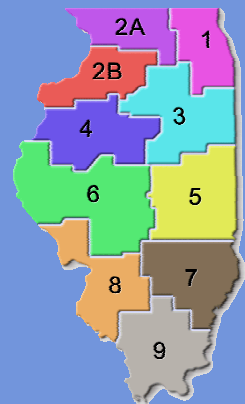
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